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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/815,043

**Applicant(s)**

OGURA, MASAOKI

**Examiner**

JUNG KIM

**Art Unit**

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)  
Paper No(s)/Mail Date see enclosed
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

1. Claims 1- 52 are pending.

### ***Information Disclosure Statement***

2. The IDS submitted on 12/12/05 has been considered. An initialed copy is enclosed.

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 10-14, 31-35, 40-44 and 46-51 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-

43 of copending Application No. 11,006,356. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of claims 1, 10-14, 31-35, 40-44 and 46-51 are defined in claims 1-42 of copending Application No. 11,006,356.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 19, 23 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 19 recites the limitation "said communication devices" in line 12, pg. 47.  
8. Claim 23 recites the limitation "said communication devices" in line 27, pg. 48.  
9. Claim 27 recites the limitation "said communication devices" in line 13, pg. 50.

There is insufficient antecedent basis for these limitations in the claims.

***Claim Rejections - 35 USC § 101***

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 31-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 31-39 define computer programs comprising functions. Computer programs are not recognized by the Office as one of the four statutory categories of patentable subject matter.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 10-12, 14, 19, 20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Vilhuber et al. US 7,386,721 (hereinafter Vilhuber).

13. As per claim 10, Vilhuber discloses an information processing apparatus for obtaining a digital certificate for communication devices (fig. 2, reference no. 202), comprising:

- a. a digital certificate transmission request unit for adding identification information of a communication device to a digital certificate transmission request for obtaining a digital certificate to be used for confirming the communication device during communication and transmitting the identification-information-

added digital certificate transmission request to a digital certificate management device (5:19-24; 6:36-49); and

b. a digital certificate processing unit connected to said digital certificate transmission request unit for receiving a corresponding one of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request, said processing digital certificate unit transmitting the correspondingly received digital certificate to the communication device and writing the correspondingly received digital certificate to memory in the communication device. (8:5-8 and lines 21-49)

14. As per claim 11, Vilhuber discloses an information processing apparatus for obtaining a digital certificate for communication devices (fig. 2, reference no. 202), comprising:

c. a digital certificate transmission request unit for adding identification information of a predetermined number of communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming the communication devices during communication, said digital certificate transmission request unit transmitting the identification-information-added digital certificate transmission request to a digital certificate management device (5:19-24; 6:39-40);

d. a digital certificate processing unit connected to said digital certificate transmission request unit for receiving corresponding ones of the digital

certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request, said digital certificate processing unit temporarily storing the correspondingly received digital certificates in memory of an information processing device (6:36-50); and

e. an inputting unit connected to said digital certificate processing unit for inputting a portion of the identification information on the predetermined number of the communication devices to said digital certificate processing unit (5:53-67; 9:6-38), wherein said digital certificate processing unit reading the digital certificates corresponding to the inputted identification information from the information processing device, said digital certificate processing unit transmitting each of the correspondingly read digital certificates to a corresponding one of the communication devices according to the inputted identification information and writing each of the correspondingly read digital certificates to memory in the corresponding one of the communication devices. (8:5-8 and lines 21-49)

15. As per claim 12, Vilhuber discloses the information processing apparatus according to claim 11 further comprising a coding unit connected to said digital certificate processing unit for coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices according to the inputted identification information. Fig. 2, reference nos. 206 and 210.

16. As per claim 14, Vilhuber discloses the information processing apparatus according to claim 11 further comprising a deleting unit connected to said digital certificate processing unit for deleting the digital certificate from the information processing device after said digital certificate processing unit successfully completes writing of the digital certificate in the communication device. (deletion of memory state in dynamic memory is an inherent feature)

17. As per claim 19, Vilhuber discloses an information management system over a network (fig. 2), comprising:

- f. a communication device further comprising a memory unit for storing a digital certificate (fig. 2, reference no. 104);
- g. an information processing unit connected to said communication device (fig. 2, reference no. 202) further comprising:
  - i. a digital certificate transmission request unit for adding identification information of a predetermined number of said communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming said communication devices during communication and for transmitting the identification-information-added digital certificate transmission (fig. 2, reference no. 206); and
  - ii. a first digital certificate transmission unit connected to said digital certificate transmission request unit (fig. 2, reference nos. 110, 206 and 250);



- h. a digital certificate management unit connected to said information processing unit (fig. 2, reference nos. 206 and 110) further comprising:
    - iii. a digital certificate generation unit for receiving the identification-information-added digital certificate transmission and generating a corresponding one of the digital certificates (fig. 2, reference nos. 110 and 210); and
    - iv. a second digital certificate transmission unit connected to said digital certificate generation unit for transmitting the corresponding one of the digital certificates to said information processing unit (fig. 2, reference nos. 110, 206 and 250),
  - i. wherein said digital certificate transmission unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit transmitting the correspondingly received digital certificate to the communication device and writing the correspondingly received digital certificate to said memory in the communication device. (5:19-24; 6:36-50; 8:5-8 and lines 21-49)
18. As per claim 20, Vilhuber discloses wherein said digital certificate transmission unit confirms the communication device based upon the digital certificate and further comprises a coding unit connected to said first digital certificate transmission unit for

coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices. Fig. 2, reference nos. 206 and 210.

19. As per claim 22, Vilhuber discloses the information management system according to claim 19 further comprising a deleting unit connected to said information processing unit for deleting the digital certificate from said information processing device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. (deletion of memory state in dynamic memory is an inherent feature)

***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 13 and 21 are rejected under 35 USC 103(a) as being unpatentable over Vilhuber.

22. As per claim 13, the rejection of claim 11 under 35 USC 102(e) as being anticipated by Vilhuber is incorporated herein. Although Vilhuber does not expressly disclose an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said

writing step; it is notoriously well known in the art at the time of invention to set a completion flag indicative of successful writing of data; a setting of a flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of identifying an error state immediately; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 13.

23. As per claim 21, the rejection of claim 19 under 35 USC 102(e) as being anticipated by Vilhuber is incorporated herein. Although Vilhuber does not expressly disclose the information management system according to claim 19 further comprising a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful writing of data; a setting of a flag to indicate successful writing is a means of ensuring that the value

stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of immediately identifying an error state; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 21.

24. Claims 1-5, 23-26, 31-35, 40-44 and 46-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilhuber in view of Ramasubramani et al. US 6,233,577 (hereinafter Ramasubramani).

25. As per claim 1, Vilhuber discloses a method of obtaining a digital certificate for communication devices, comprising the steps of:

- j. adding identification information of a communication device to a digital certificate transmission request for obtaining a digital certificate to be used for confirming the communication device during communication; transmitting the

identification-information-added digital certificate transmission request to the digital certificate management device (5:19-24; 6:36-49);

k. receiving a corresponding one of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request; transmitting the correspondingly received digital certificate to the communication device; and writing the correspondingly received digital certificate to memory in the communication device. (8:5-8 and lines 21-49)

26. Vilhuber does not disclose storing digital certificates each with corresponding identification information in a digital certificate management device. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to store digital certificates each with corresponding identification information in a digital certificate management device. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani. The aforementioned cover the limitations of claim 1.

27. As per claim 2, Vilhuber discloses a method of obtaining a digital certificate for communication devices, comprising the steps of:

- l. adding identification information of a predetermined number of communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming the communication devices during communication; transmitting the identification-information-added digital certificate transmission request to the digital certificate management device (5:19-24; 6:39-40);
- m. receiving corresponding ones of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request (6:36-49);
- n. temporarily storing the correspondingly received digital certificates in memory of an information processing device (6:45-50);
- o. inputting a portion of the identification information on the predetermined number of the communication devices (5:53-67; 9:6-38);
- p. reading the digital certificates corresponding to the inputted identification information from the information processing device; transmitting each of the correspondingly read digital certificates to a corresponding one of the communication devices according to the inputted identification information (8:5-8); and

- q. writing each of the correspondingly read digital certificates to memory in the corresponding one of the communication devices. (8:21-49)
28. Vilhuber does not disclose storing digital certificates each with corresponding identification information in a digital certificate management device. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to store digital certificates each with corresponding identification information in a digital certificate management device. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani, *ibid*. The aforementioned cover the limitations of claim 2
29. As per claim 3, the rejection of claim 2 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani is incorporated herein. In addition, Ramasubramani discloses the method comprising the additional step of coding each of the correspondingly read digital certificates prior to transmitting to a

corresponding one of the communication devices according to the inputted identification information. Col. 12:33-51; fig. 2, reference no. 206.

30. As per claim 4, the rejection of claim 2 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani is incorporated herein. Although Vilhuber does not expressly disclose an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step; it is notoriously well known in the art at the time of invention to set a completion flag indicative of successful write; a setting of a flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of immediately identifying an error state; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 4.

31. As per claim 5, the rejection of claim 2 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani is incorporated herein. In



addition, Vilhuber discloses the method further comprising an additional step of deleting the digital certificate from the information processing device upon successfully completing said writing step. (deletion of memory state in dynamic memory is an inherent feature)

32. As per claim 23, Vilhuber discloses an information management system over a network (fig. 2), comprising:

- r. a communication device further comprising a memory unit for storing a digital certificate (fig. 2, reference no. 104);
- s. an information processing unit connected to said communication device (fig. 2, reference no. 202) further comprising:
  - v. an input unit for inputting identification information for said communication device (5:53-67; 9:6-38);
  - vi. a digital certificate transmission request unit for adding identification information of a predetermined number of said communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming said communication devices during communication and for transmitting the identification-information-added digital certificate transmission (fig. 2, reference no. 206); and
  - vii. a first digital certificate transmission unit connected to said digital certificate transmission request unit (fig. 2, reference nos. 110, 206 and 250);

- t. a digital certificate management unit connected to said information processing unit (fig. 2, reference nos. 206 and 110) further comprising:
  - viii. a digital certificate generation unit for receiving the identification-information-added digital certificate transmission and generating a corresponding one of the digital certificates (fig. 2, reference nos. 110 and 210); and
  - ix. a second digital certificate transmission unit connected to said digital certificate generation unit for transmitting the corresponding one of the digital certificates to said information processing unit (fig. 2, reference nos. 110, 206 and 250),
  - u. wherein said digital certificate transmission unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit transmitting the correspondingly received digital certificate to the communication device and writing the correspondingly received digital certificate to said memory in the communication device. (6:36-50; 5:19-24; 8:5-8 and lines 36-49)
- 33. Vilhuber does not disclose a digital certificate storage unit for storing the digital certificates; wherein the digital certificate storage unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit reading the correspondingly received digital

certificate from said digital certificate storage unit based upon the inputted identification information. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a digital certificate storage unit for storing the digital certificates; wherein the digital certificate storage unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based upon the inputted identification information. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani, *ibid*. The aforementioned cover the limitations of claim 23

34. As per claim 24, Vilhuber discloses wherein said digital certificate transmission unit confirms the communication device based upon the digital certificate and further comprises a coding unit connected to said first digital certificate transmission unit for

coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices. Fig. 2, reference nos. 206 and 210.

35. As per claim 25, the rejection of claim 23 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani is incorporated herein. Although Vilhuber does not expressly disclose the information management system according to claim 23 further comprising a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful writing; a setting of a flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of identifying an error state immediately; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method

as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 25.

36. As per claim 26, Vilhuber discloses the information management system according to claim 23 further comprising a deleting unit connected to said information processing unit for deleting the digital certificate from said information processing device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. (deletion of memory state in dynamic memory is an inherent feature)

37. As per claim 31, it is a claim corresponding to claim 1, and it does not teach or define above the information claimed in claim 1. Therefore, claim 31 is rejected as being unpatentable over Vilhuber in view of Ramasubramani for the same reasons set forth in the rejection of claim 1.

38. As per claims 32-35, they are claims corresponding to claims 2-5, and they do not teach or define above the information claimed in claims 2-5. Therefore, claims 32-35 are rejected as being unpatentable over Vilhuber in view of Ramasubramani for the same reasons set forth in the rejections of claims 32-35.

39. As per claims 40-44 and 46, Vilhuber discloses a communication device production system in connection with digital certificate management, comprising: a

production management system for managing production of a predetermined set of communication devices (col. 5:13-26; fig. 2, reference nos. 202 and 206); a digital certificate database (6:45-60); a communication terminal connected to said production management system (fig. 2, reference no. 202; 8:55-10:54, in particular, 9:6-18), said digital certificate database and the digital certificate management for controlling a flow of obtaining the digital certificates from the digital certificate management and delivering the digital certificates to the communication devices based upon a digital certificate request (6:46-50); and a factory terminal connected to said communication terminal and the communication devices for delivering the digital certificates to the communication devices as specified by the digital certificate request (5:53-67; 8:36-49); wherein the digital certificate request specifies a set of the communication devices (a set defines zero or more elements); wherein the digital certificate request specifies a single one of the communication devices (6:38-39; 7:65-8:8; fig. 3a); wherein said production management system issues the digital certificate request (fig. 2); further comprising an input device connected to said communication terminal for inputting information for the digital certificate request (5:40-67; 9:5-38); wherein said factory terminal delivers the digital certificates to a predetermined set of the communication devices (4:51-53).

40. Vilhuber does not expressly disclose storing the digital certificates in the digital certificate database. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is

generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to store the digital certificates in the digital certificate database. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani. The aforementioned cover the limitations of claim 40-44 and 46.

41. As per claims 47-51, they are claims corresponding to claims 40-44, and they do not teach or define above the information claimed in claims 40-44. Therefore, claims 47-51 are rejected as being unpatentable over Vilhuber in view of Ramasubramani for the same reasons set forth in the rejections of claims 40-44.

42. Claims 6-9, 27-30, 36-39, 45 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilhuber in view of Ramasubramani, and further in view of Amro et al. US 7,159,018 (hereinafter Amro).

43. As per claim 6, Vilhuber discloses a method of obtaining a digital certificate for communication devices, comprising the steps of:

- v. adding identification information of a predetermined number of communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming the communication

- devices during communication; transmitting the identification-information-added digital certificate transmission request to the digital certificate management device (5:19-24; 6:39-40);
- w. receiving corresponding ones of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request (6:36-49);
  - x. temporarily storing the correspondingly received digital certificates in memory of an information processing device (6:45-50);
  - y. inputting a portion of the identification information on the predetermined number of the communication devices (5:53-67);
  - z. reading the digital certificates corresponding to the input identification information from the information processing device; transmitting each of the correspondingly read digital certificates to a corresponding one of the communication devices according to the scanned identification information (8:5-8); and
  - aa. writing each of the correspondingly read digital certificates to memory in the corresponding one of the communication devices. (8:21-49)
44. Vilhuber does not disclose storing digital certificates each with corresponding identification information in a digital certificate management device. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to



the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to store digital certificates each with corresponding identification information in a digital certificate management device. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani, *ibid*.

45. Finally, Vilhuber does not disclose scanning a barcode indicative of the identification information on the predetermined number of the communication devices from a predetermined source. Amro discloses a method for installing software components onto a computing system using an identification device, the identification device is associated with the computing system while software components are installed onto the computing system, wherein the identification device includes an identifier coded as a barcode; once the barcode is scanned, a script associated with the scanned identifier is executed causing one or more software components to be installed onto the computer system. Fig. 3, col. 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to scan a barcode indicative of the identification information on the predetermined number of the communication devices from a predetermined source. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary

skill in the art. See also, Amro, col. 1:27-32. The aforementioned cover the limitations of claim 6.

46. As per claim 7, the rejection of claim 6 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani and Amro is incorporated herein. In addition, Ramasubramani discloses the method comprising the additional step of coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices according to the scanned identification information. Col. 12:33-51; fig. 2, reference no. 206.

47. As per claim 8, the rejection of claim 6 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani and Amro is incorporated herein. Although Vilhuber does not expressly disclose an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful write; a setting of flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is immediately capable of identifying an error state; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include an additional step of setting a completion flag indicative of

successfully writing the digital certificate in the communication device upon successfully completing said writing step. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 8.

48. As per claim 9, the rejection of claim 6 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani and Amro is incorporated herein. In addition, Vilhuber discloses the method further comprising an additional step of deleting the digital certificate from the information processing device upon successfully completing said writing step. (deletion of memory state in dynamic memory is an inherent feature)

49. As per claim 27, Vilhuber discloses an information management system over a network (fig. 2), comprising:

- bb. a communication device further comprising a memory unit for storing a digital certificate (fig. 2, reference no. 104);
- cc. an information processing unit connected to said communication device (fig. 2, reference no. 202) further comprising:
  - x. an input unit for inputting identification information for said communication device (5:53-67; 9:6-38);

- xi. a digital certificate transmission request unit for adding identification information of a predetermined number of said communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming said communication devices during communication and for transmitting the identification-information-added digital certificate transmission (fig. 2, reference no. 206); and
- xii. a first digital certificate transmission unit connected to said digital certificate transmission request unit (fig. 2, reference nos. 110, 206 and 250);
- dd. a digital certificate management unit connected to said information processing unit (fig. 2, reference nos. 206 and 110) further comprising:
  - xiii. a digital certificate generation unit for receiving the identification-information-added digital certificate transmission and generating a corresponding one of the digital certificates (fig. 2, reference nos. 110 and 210); and
  - xiv. a second digital certificate transmission unit connected to said digital certificate generation unit for transmitting the corresponding one of the digital certificates to said information processing unit (fig. 2, reference nos. 110, 206 and 250),
- ee. wherein said digital certificate transmission unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital

certificate transmission request, said first digital certificate transmission unit transmitting the correspondingly received digital certificate to the communication device and writing the correspondingly received digital certificate to said memory in the communication device. (6:36-50; 5:19-24; 8:5-8 and lines 36-49)

50. Vilhuber does not disclose a digital certificate storage unit for storing the digital certificates; wherein the digital certificate storage unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based upon the inputted identification information. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a digital certificate storage unit for storing the digital certificates; wherein the digital certificate storage unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate

transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based upon the inputted identification information. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani, *ibid*.

51. Finally, Vilhuber does not disclose a scanning unit for scanning a barcode from said communication device as identification information for said communication device; wherein the first digital certificate transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based upon the scanned identification information. Amro discloses a method for installing software components onto a computing system using an identification device, the identification device is associated with the computing system while software components are installed onto the computing system, wherein the identification device includes an identifier coded as a barcode; once the barcode is scanned, a script associated with the scanned identifier is executed causing one or more software components to be installed onto the computer system. Fig. 3, col. 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a scanning unit for scanning a barcode from said communication device as identification information for said communication device; wherein the first digital certificate transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based upon the scanned identification information. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill

in the art. See also, Amro, col. 1:27-32. The aforementioned cover the limitations of claim 27.

52. As per claim 28, Vilhuber discloses wherein said digital certificate transmission unit confirms the communication device based upon the digital certificate and further comprises a coding unit connected to said first digital certificate transmission unit for coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices. Fig. 2, reference nos. 206 and 210.

53. As per claim 29, the rejection of claim 27 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani is incorporated herein. Although Vilhuber does not expressly disclose the information management system according to claim 27 further comprising a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful write; a setting of a flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of identifying an error state immediately; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made

for the invention of Vilhuber to include a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 29.

54. As per claim 30, Vilhuber discloses the information management system according to claim 27 further comprising a deleting unit connected to said information processing unit for deleting the digital certificate from said information processing device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. (deletion of memory state in dynamic memory is an inherent feature)

55. As per claims 36-39, they are claims corresponding to claims 6-9, and they do not teach or define above the information claimed in claims 6-9. Therefore, claims 36-39 are rejected as being unpatentable over Vilhuber in view of Ramasubramani and Amro for the same reasons set forth in the rejections of claims 6-9.

56. As per claim 45, the rejection of claim 40 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Ramasubramani is incorporated herein. Vilhuber



does not disclose the system further comprising a scanning unit connected to said factory terminal for scanning a barcode on the communication device to input to said communication terminal information for the digital certificate request. Amro discloses a method for installing software components onto a computing system using an identification device, the identification device is associated with the computing system while software components are installed onto the computing system, wherein the identification device includes an identifier coded as a barcode; once the barcode is scanned, a script associated with the scanned identifier is executed causing one or more software components to be installed onto the computer system. Fig. 3, col. 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a scanning unit connected to said factory terminal for scanning a barcode on the communication device to input to said communication terminal information for the digital certificate request. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32. The aforementioned cover the limitations of claim 45

57. As per claim 52, it is a claim corresponding to claim 45, and it does not teach or define above the information claimed in claim 45. Therefore, claim 52 is rejected as being unpatentable over Vilhuber in view of Ramasubramani and Amro for the same reasons set forth in the rejection of claim 45.

58. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilhuber in view of Amro.

59. As per claim 15, Vilhuber discloses an information processing apparatus for obtaining a digital certificate for communication devices, comprising:

ff. a digital certificate transmission request unit for adding identification information of a predetermined number of communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming the communication devices during communication, said digital certificate transmission request unit transmitting the identification-information-added digital certificate transmission request to a digital certificate management device (5:19-24; 6:39-40);

gg. a digital certificate processing unit connected to said digital certificate transmission request unit for receiving corresponding ones of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request, said digital certificate processing unit temporarily storing the correspondingly received digital certificates in memory of an information processing device (6:36-49); and

hh. an input unit connected to the digital certificate processing unit for inputting identification information on the predetermined number of the communication devices from a predetermined source(5:53-67), wherein said digital certificate processing unit reading the digital certificates corresponding to

the input identification information from the information processing device, said digital certificate processing unit transmitting each of the correspondingly read digital certificates to a corresponding one of the communication devices according to the scanned identification information and writing each of the correspondingly read digital certificates to memory in the corresponding one of the communication devices. (8:5-8 and lines 36-49);

60. Vilhuber does not disclose a scanning unit connected to said digital certificate processing unit for scanning a barcode indicative of the identification information on the predetermined number of the communication devices from a predetermined source. Amro discloses a method for installing software components onto a computing system using an identification device, the identification device is associated with the computing system while software components are installed onto the computing system, wherein the identification device includes an identifier coded as a barcode; once the barcode is scanned, a script associated with the scanned identifier is executed causing one or more software components to be installed onto the computer system. Fig. 3, col. 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a scanning unit connected to said digital certificate processing unit for scanning a barcode indicative of the identification information on the predetermined number of the communication devices from a predetermined source. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32. The aforementioned cover the limitations of claim 15.

61. As per claim 16, the rejection of claim 15 under Vilhuber in view of Amro is incorporated herein. In addition, Vilhuber discloses the information processing apparatus according to claim 15 further comprising a coding unit connected to said digital certificate processing unit for coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices according to the inputted identification information. Col. 12:33-51; fig. 2, reference no. 206.

62. As per claim 17, the rejection of claim 15 under Vilhuber in view of Amro is incorporated herein. Although Vilhuber does not expressly disclose a flag setting unit connected to said digital certificate processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful write; a setting of flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of identifying an error state immediately; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a flag setting unit connected to said digital certificate processing unit for setting a completion flag indicative of successfully writing the digital certificate in the

communication device upon successfully completing said writing step. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 17.

63. As per claim 18, the rejection of claim 15 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro is incorporated herein. In addition, Vilhuber discloses the information processing apparatus for according to claim 15 further comprising a deleting unit connected to said digital certificate processing unit for deleting the digital certificate from the information processing device upon successfully completing said writing step. (deletion of memory state in dynamic memory is an inherent feature)

### ***Communications Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Jung Kim/  
Primary Examiner, AU 2132